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ABSTRACT

The paper expresses the viewpoint of the author, based on his own two-year experience in supervising the use of the on-line Ohio College Library Center (OCLC) system in Temple University Library. The report contains a brief description of the formation of the Philadelphia Area Library Network (PALINET) and it lists some problems dealt with by PALINET's Operations Committee. A detailed description of the use of OCLC terminals in Temple University Library includes: 1) diagrams illustrating the procedures used in implementing the OCLC system; 2) a discussion of pros and cons of shared cataloging; and 3) mention of some processing problems. The statistical evaluation of the system is presented in a tabular form and it includes a comparison of manual and OCLC processing time, quantitative enumeration of types of material processed and some general costs estimates. The report also outlines some variations in the use of the OCLC system by participating PALINET Libraries. A list of some publications that might be of interest to the reader of the report is also included. (Author/CH)

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IR 000 345

ABSTRACT

This report was prepared as resource material for a panel discussion at the 1974 ALA Midwinter meeting in Chicago of the Technical Services Administrators of Smaller Research Libraries.

The paper expresses the personal viewpoint of the author, based on his own experiences in supervising the two years experimental use of the on-line OCLC system in Temple University Library.

The report contains a brief description of the formation of the Pennsylvania Area Library Network (PALINET) and it lists some problems dealt with by the PALINET's Operations Committee.

A more detailed description of the use of the OCLC terminals in Temple University Libraries includes:

(a) diagrams illustrating the procedures used in implementing the OCLC system,

(b) a discussion of pros and cons of shared cataloging, and

(c) mention of some processing problems.

The statistical evaluation of the system is presented in a tabular form and it includes a comparison of manual and OCLC processing time, quantitative enumeration of types of material processed and some general costs estimates. The report also outlines some variations in the use of the OCLC system by participating PALINET Libraries. The paper ends with a reflection on the OCLC-like systems in general. A list of some publications that might be of interest to the reader of the report is also included.

The report and the accompanying checklist of reading are not intended to provide a comprehensive or in-depth evaluation of the OCLC system. The paper may be of value to other administrators in telling them "how it works" in one library.

I. Introduction

Perhaps it is too early to review the operation of a system which is not yet fully implemented. Furthermore, there are many computer specialists, much better qualified than myself to evaluate the technology used in automation of technical services operations; and equally as many advanced catalogers who can more thoroughly examine the significance of an emerging shared cataloging system.(1)

Thus, this report is limited to the viewpoint of one administrator of one library and it is based almost exclusively on his own two-year experience in supervising technical services operations in transition. The presentation stresses the administrative aspects of the Ohio College Library Center (OCLC) system, technical characteristics are kept to a minimum. For more detailed descriptions and analyses of the OCLC system see the bibliography.(2)

This report, although restricted in scope, may be of some value to other administrators not yet exposed to the system in telling them "how it works" in one library. For the administrators already involved in the OCLC system, these notes are offered for comparison with their own experiences.

II. An emergence of a regional approach to the OCLC system

A direct interest in the OCLC system in the Philadelphia area evolved from a visit to Columbus, Ohio, in August of 1971.(3)

The visit was initiated by Mr. DeGennaro, the Director of the University of Pennsylvania Libraries, who invited library administrators from Bryn Mawr, Drexel and Temple Universities to join the University of Pennsylvania librarians in a one day conference with Mr. Kilgour, the Director of the OCLC.

At that time OCLC was already producing off-line catalog cards, and had just started its on-line shared cataloging system a day before our conference.

The demonstration of the OCLC system in action was very impressive. The prospect of introducing serials, acquisitions and circulation systems in the near future was very attractive indeed. Back in Philadelphia, the group reviewed their impressions and agreed to study the system. The Pennsylvania Union Library Catalogue offered a one year sponsorship of the on-line experimental use of the OCLC system. The cost of the operations was paid in part by the participating libraries, and in part by a "grant from the Pennsylvania State Library, using the funds made available from Library Services and Construction Act, Title III, Library Cooperation".

The three libraries of Drexel, University of Pennsylvania and Temple began the experiment in January 1972.. Each library tested the system, by evolving its own approach, independently of the approaches of the other two libraries. The librarians responsible for the experiment in their own libraries, met occasionally to discuss the administrative and technical aspects of the experiment. This unstructured, individualistic approach allowed for testing a number of options offered by the system.

Spiras terminals were installed in the three libraries in January, 1972, and were connected with the OCLC system for one month in a guest mode, for the purpose of training personnel only. The full on-line operations started in March, 1972. At Temple University, the first two months were used for training two professional librarians and three bibliographic assistants. The training itself consisted of a self study of the operation's manual and practice in the use of the terminal; it was completed by a one day question and answer session with an OCLC representative.

From the very beginning of the experiment we were trying to utilize as many of the available data as possible in our pre-order and pre-cataloging searching, as well as in manual cataloging.

Simultaneously with the ongoing experimentation, an organizational structure of the local network began to emerge.

Early in summer, 1972, the very concept of the OCLC system was critically reviewed. The main concern was not so much about the product of the system, but about the structure of the system itself. The possibility of the development of an on-line MARC Data Base system, based on the local IBM computer facilities, was investigated by some library administrators. Although the chances for success for such a system seemed good, the idea was abandoned in favor of the OCLC. The proverbial wisdom of the saying that one bird in the hand is better than two in the bush, proved again to offer an overpowering argument.

A formal regional organization began with an inaugural meeting of the administrators of the participating libraries in December, 1972. The group organized itself into a Board of Directors, consisting of the Directors of the libraries of: Pennsylvania Union Library Catalogue, University of Pennsylvania, Drexel, Temple, University of Delaware, and Bryn Mawr. The Board elected its chairman and requested formation of the Operations Committee, composed of the Associate Directors, directly responsible for the implementation of the OCLC system in their own libraries. The Board of Directors scheduled infrequent meetings to discuss the recommendations and to review the actions taken by the Operations Committee. The functions of the Operations Committee include setting up policies and procedures related to the OCLC, the membership, the allocation of costs, etc. A separate cataloging sub-committee reviews all issues directly related to the shared cataloging operations. A serials sub-committee is being formed in anticipation of the OCLC serials program.

The initial name of the organization, Mid-Atlantic Library Network (MALINET) was changed to PALINET (Pennsylvania Area Library Network). PALINET is completely unrelated to PALC (Pittsburgh Regional Library Center)

which has participated in the OCLC off-line cataloging services since November, 1970, and had the first on-line terminal installed late in 1971.

A brief review of some of the topics discussed by the Operations Committee may illustrate some types of problems tackled during the last year.

A. Issues concerning membership in PALINET:

Delineation of the geographical areas of PALINET coverage not restricted by state line, the size or type of the member library, and avoiding competition with Pittsburgh group (PALC). The problems of equal participation in PALINET decision making processes, assistance to new members in preparing their profile, provision for technical advice, etc.

B. Financial obligations of each member library agreed on by the committee are:

- charges for telephone lines and conditioning, (determined by AT & T) to be shared equally by all members irrespectively of the location of each library
- terminal charges for local loop and data sets, (determined by AT & T) and costs of terminal maintainance (determined by Syntonic Inc.) to be paid by each library individually
- cost of usage of OCLC central facilities, based on number of records used (determined by OCLC), paid by each library
- PALINET overheads (determined by PALINET) to be shared equally by all member libraries
- charges for catalog cards (determined by OCLC), for programming and profile (determined by OCLC), paid individually by each library

PALINET is billed annually for all the services provided by the OCLC. The charges are based on the [illegible] processed by participating libraries. Each library pays PALINET either half or all the amount of its bills which is made of utility. The balance is paid in two equal installments. The service agreement from any additional payment is added to the PALINET general fund. Individual libraries are charged directly for the cost associated with profile expenses by the OCLC.

C. Issues concerning terminals

A terminal service agreement, effective after the expiration of a 90 days warranty covers three units per terminal per year at a monthly charge of $30 per terminal. Additional units are $20 per terminal, per unit. This contract can automatically renewed and its provisions challenged and finally has to be changed without any changes. PALINET agreed to share, on a group, all costs of additional services charged to any member.

Another issue concerned sharing one terminal by more than one library. In such an arrangement, how charge is distributed and what effect would it have on the original agreement

III. Temple University's experience, implementation of the system in one university library.

A. Processing operations in the OCLC system

The diagrams in Fig. 1 are provided for illustrative purpose only. The Technical Services Division maintains detailed procedures which describe, in full, the implementation of the OCLC system in the Temple University Library. [6]

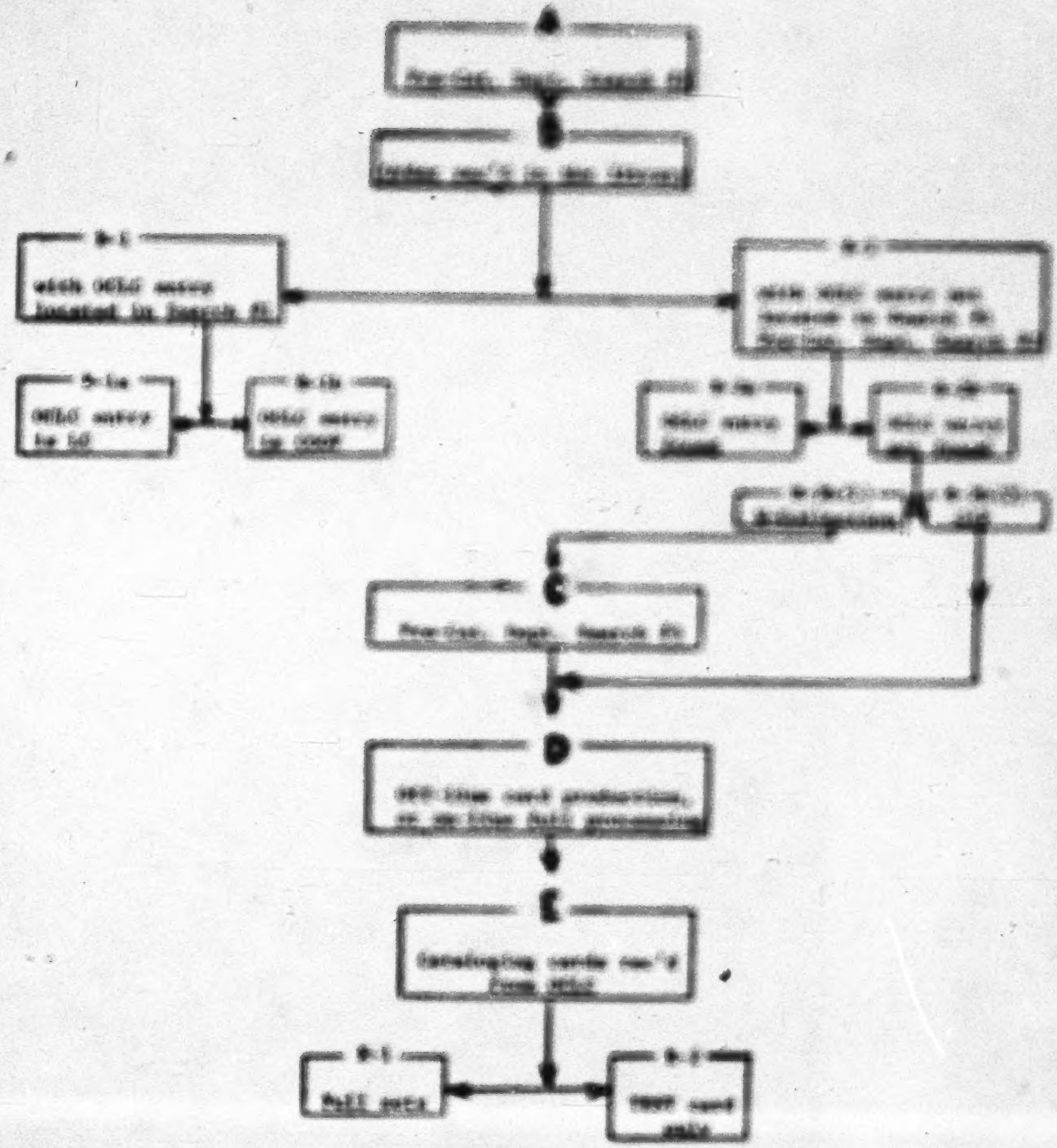
As shown in these diagrams, we use the terminal for two kinds of searching: to identify the entry at the time of placing an order, and/or to locate the OCLC entry at the time a book is received. If these searches are unsatisfactory, we search once more in the NUC. We try to improve the verification process by ordering a TEST card before the book is forwarded to the catalog Departments.

In cataloging operations we distinguish between LC and cooperative (COOP) entries; whenever possible, LC entries are accepted as given, COOP entries are edited or rejected.

Books are forwarded for physical processing (stamping, labeling, book jacketing, etc.) and for shelf distribution as soon as the entry is cataloged or edited. The processed cards are filed roughly two or three weeks later.

Books with no LC or COOP entries are forwarded to the "originators" to await OCLC or off-line cataloging. Such books are then fully accessible to the user. (5)

Fig. 1



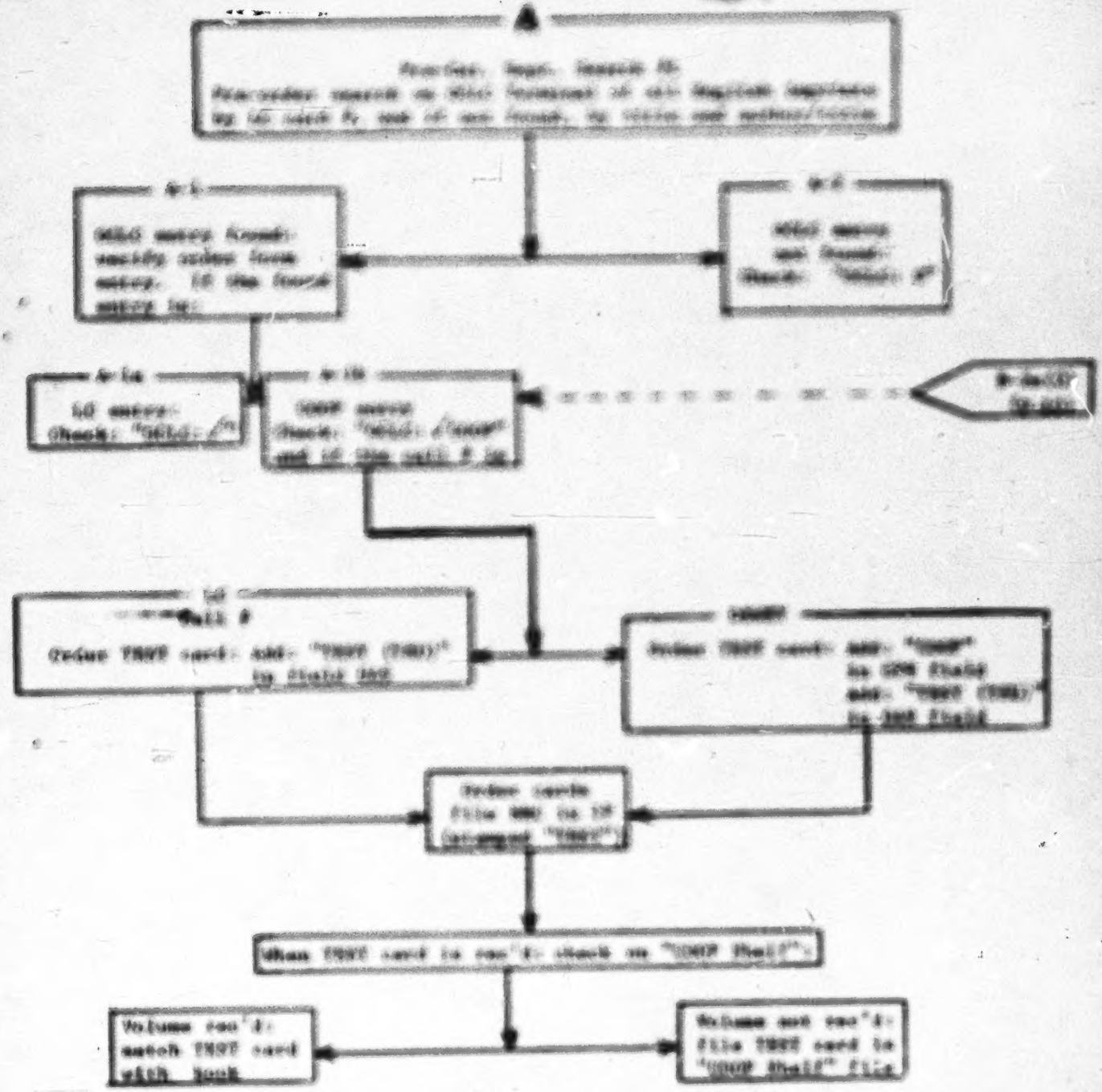


Fig.1 (con't.)

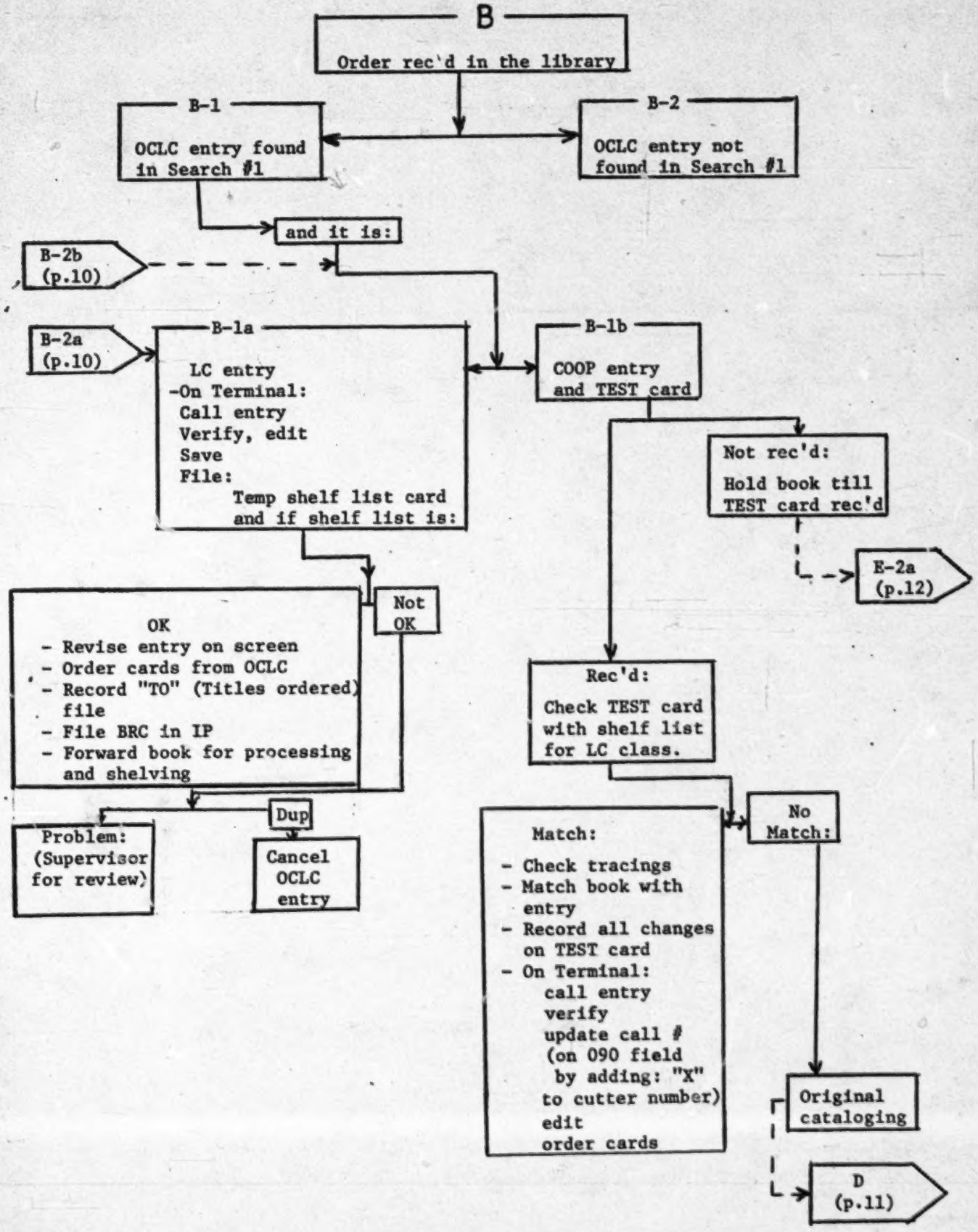

B
Order rec'd in the library
B-1
OCLC entry found in Search #1
B-2
OCLC entry not found in Search #1
and it is:
B-2b (p.10)
B-2a (p.10)
B-1a
LC entry
-On Terminal:
Call entry
Verify, edit
Save
File:
Temp shelf list card
and if shelf list is:
B-1b
COOP entry and TEST card
Not rec'd:
Hold book till TEST card rec'd
E-2a (p.12)
Not OK
OK
- Revise entry on screen
- Order cards from OCLC
- Record "TO" (Titles ordered) file
- File BRC in IP
- Forward book for processing and shelving
Dup
Problem: (Supervisor for review)
Cancel OCLC entry
Rec'd:
Check TEST card with shelf list for LC class.
No Match:
Match:
- Check tracings
- Match book with entry
- Record all changes on TEST card
- On Terminal:
call entry
verify
update call #
(on 090 field by adding: "X" to cutter number)
edit
order cards
Original cataloging
D (p.11)

Fig. 1 (con't.)

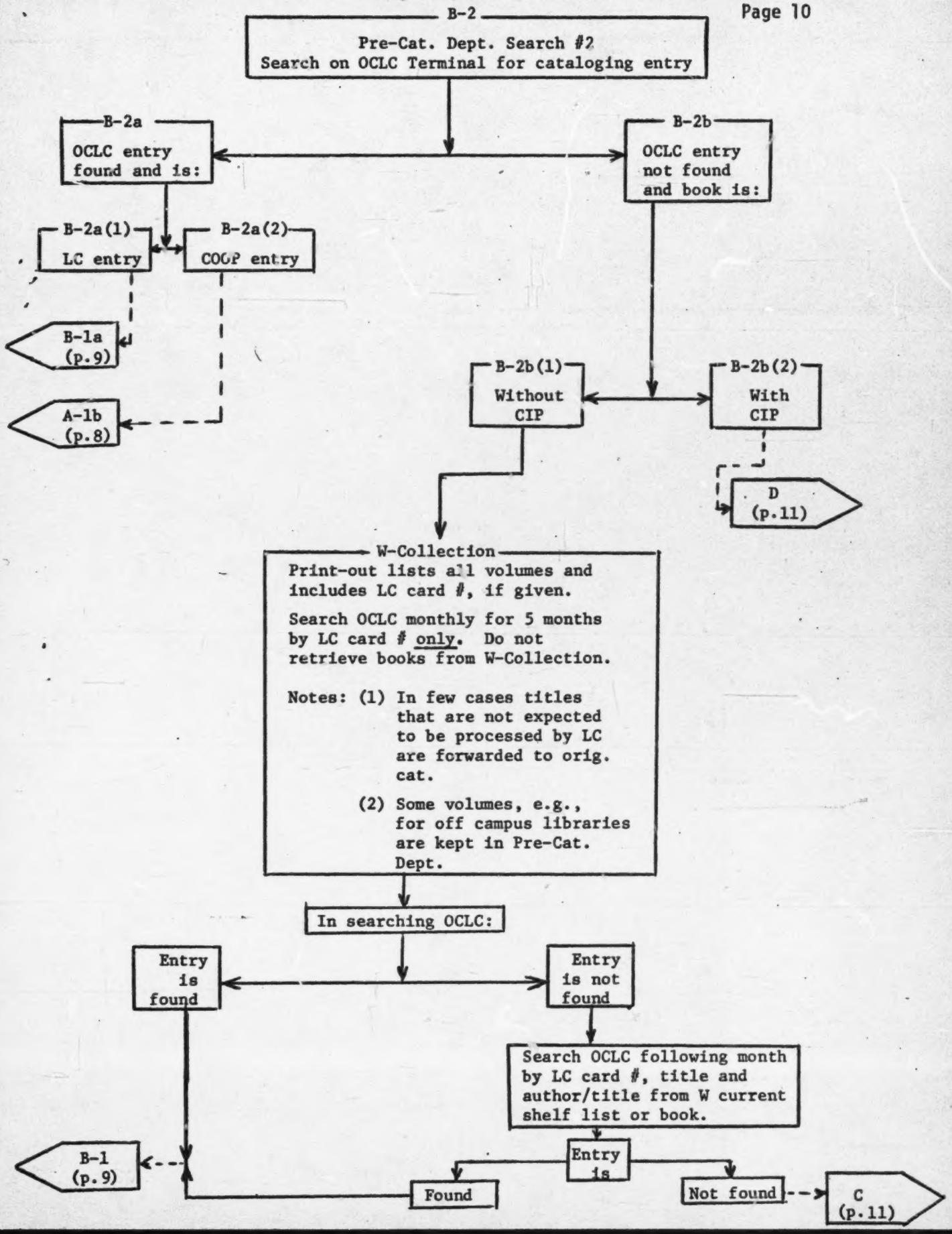
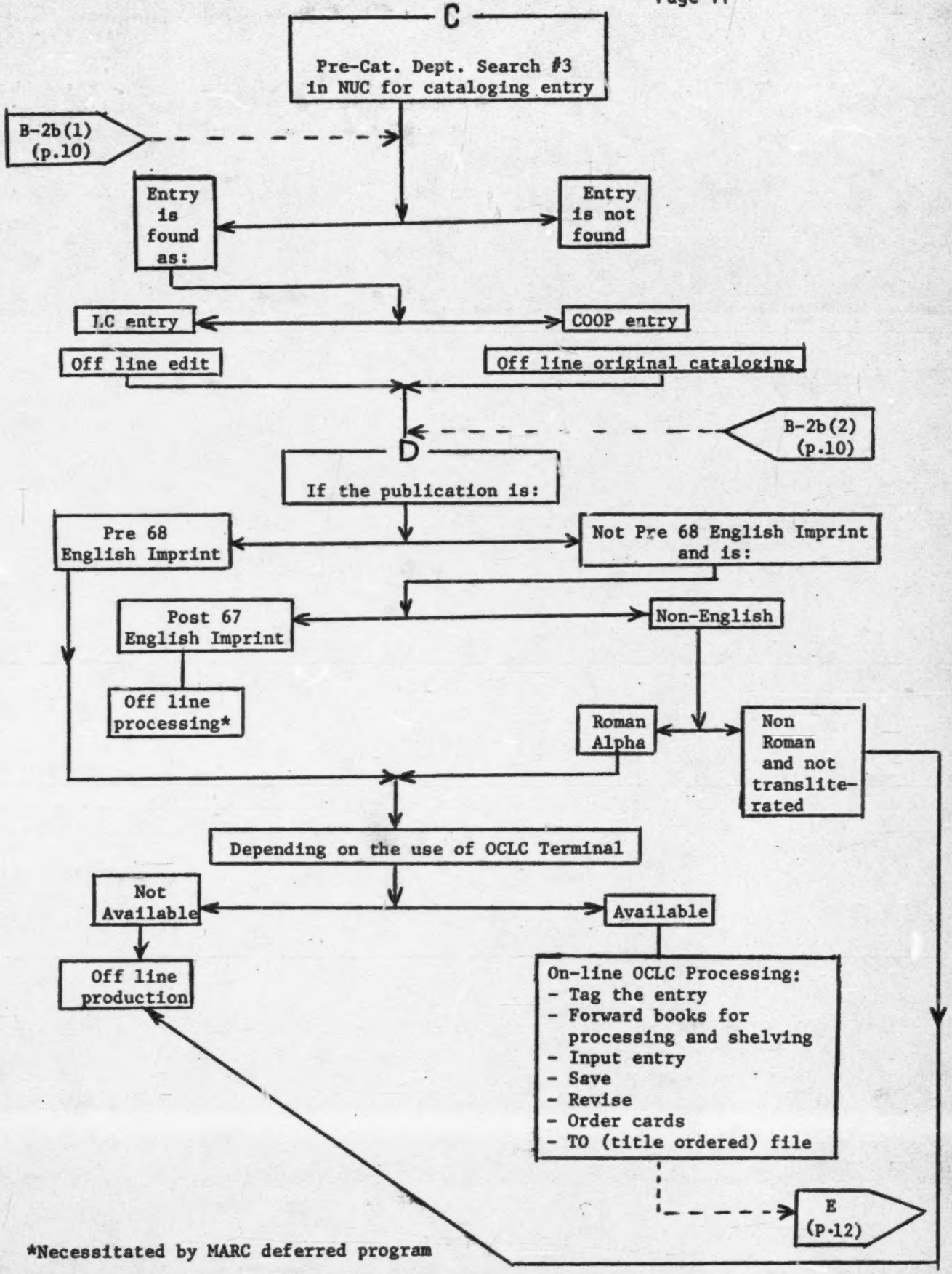
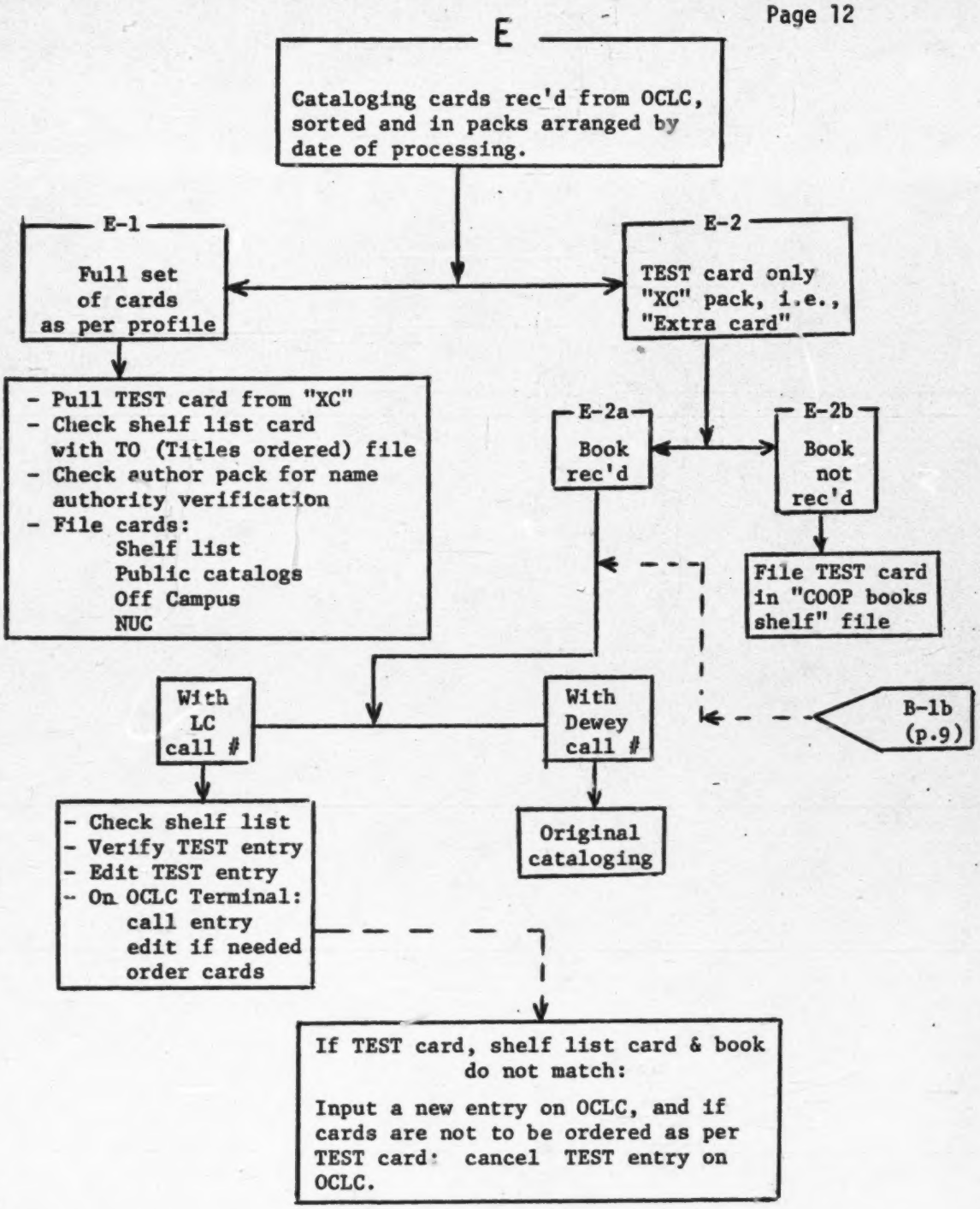

B-2
Pre-Cat. Dept. Search #2
Search on OCLC Terminal for cataloging entry
B-2a
OCLC entry found and is:
B-2b
OCLC entry not found and book is:
B-2a(1)
LC entry
B-2a(2)
COOP entry
B-1a (p.9)
A-1b (p.8)
B-2b(1)
Without CIP
B-2b(2)
With CIP
D (p.11)
W-Collection
Print-out lists all volumes and includes LC card #, if given.
Search OCLC monthly for 5 months by LC card # only. Do not retrieve books from W-Collection.
Notes: (1) In few cases titles that are not expected to be processed by LC are forwarded to orig. cat.
(2) Some volumes, e.g., for off campus libraries are kept in Pre-Cat. Dept.
In searching OCLC:
Entry is found
Entry is not found
Search OCLC following month by LC card #, title and author/title from W current shelf list or book.
B-1 (p.9)
Entry is
Found
Not found
C (p.11)

Fig. 1 (con't.)



*Necessitated by MARC deferred program


E
Cataloging cards rec'd from OCLC, sorted and in packs arranged by date of processing.
E-1
Full set of cards as per profile
E-2
TEST card only "XC" pack, i.e., "Extra card"
- Pull TEST card from "XC"
- Check shelf list card with TO (Titles ordered) file
- Check author pack for name authority verification
- File cards:
Shelf list
Public catalogs
Off Campus
NUC
E-2a
Book rec'd
E-2b
Book not rec'd
File TEST card in "COOP books shelf" file
With LC call #
With Dewey call #
B-1b (p.9)
- Check shelf list
- Verify TEST entry
- Edit TEST entry
- On OCLC Terminal:
call entry
edit if needed
order cards
Original cataloging
If TEST card, shelf list card & book do not match:
Input a new entry on OCLC, and if cards are not to be ordered as per TEST card: cancel TEST entry on OCLC.

B. Pros and cons of shared cataloging

A direct comparison of manual and automated processes in technical services is very difficult. The change from one procedure to another is not a step-by-step process; the transition stretches over a considerable period of time, and a number of new modifications are introduced while the change is still being made.

For these reasons, only some values of each method are discussed here, stressing the positive approach, by listing advantages of each system. Quite often, but not always, a given advantage for one method is also a disadvantage for another.

1. Searching Activities:

a. Advantages of the manual approach:

- it provides a wider scope through both the proof slip file, covering all languages and many non-book materials and the NUC indexes, extending the coverage to all imprints and to the non-LC COOP entries.
- it allows the searcher to annotate on the record itself various data, such as dates and sources previously searched. The searcher can also use a signaling system such as a dummy card for books waiting for the proof slip, or signals for claiming purposes. These devices reduce the number of negative searches.
- it provides faster access to files; more than one person can use various parts of a file simultaneously, and no prior scheduling is needed for the use of such files (as contrasted, for example, with rigid scheduling needed for use of the OCLC terminals).

b. Advantages of the OCLC approach:

- fast initial access to the entries in the file is achieved by the search key formulas, and by searching one file only;
- complete update of the record is possible at the time of the searching verification;
- fast recall of entries compensate for some errors made in the search or in the system.

2. Editing Activities:

a. Advantages of manual editing:

- the same editor can process a wider variety of material, (e.g., non-Roman entries, serials and non-book material), not restricted by the imprint dates of MARC data;
- the flow of editing is independent of the work load on terminals and is not affected by the breakdown of the system;
- records can be prepared at the time of processing the physical volumes (e.g., cards in the Public Catalogs can be filed at the time of shelving the book);
- manual editing creates less physical fatigue and is less restricted by employees' handicaps such as for example poor eyesight.

b. Advantages of editing on the OCLC terminal:

- the process is much faster since it eliminates a number of additional manual operations, such as typing, hand-writing instructions, card duplication, and pre-file sort;

- the OCLC's data base is expanding daily by original input from member libraries and by inclusion of large files converted from other systems;
- editing is inexpensive, excluding the system's overheads;
- the OCLC system makes available the services of more advanced editors from other libraries.

3. Original Cataloging:

a. Manual system:

- by itself is less expensive, since it requires no tagging or keying; a xerox page can be used for instructing the typist without rewriting all the information;
- is more relaxed since catalogers' products need not be subjected to the scrutiny of other professional catalogers throughout the country;
- offers more freedom in adjusting or even violating cataloging rules to meet local needs.

b. OCLC system:

- decreases the demand for original cataloging with the increased data base;
- needs fewer, but more advanced catalogers;
- improves cooperation between libraries in sharing catalogers' knowledge.

4. Catalog Card Production and Reproduction:

a. in manual processing, cards can be filed in the catalogs earlier, and changes on the cards can be made more freely before duplication;

b. in the OCLC system, the quality of cards is better at a lower cost, and the typing of added entries and pre-file sort are completely eliminated. The reduced in-house card production offers considerable long-range savings in the rental and maintenance of reprographic equipment, labor and supplies. The OCLC system completely eliminates the need for enlarging the catalog entries. Furthermore, the automated pre-file sort reduces the number of possible misfiles.

5. Processing Problems:

A description of the emerging processing system, adapted to the OCLC requirements, cannot be complete without mentioning some of the problems encountered.

a. Searching problems:

The searching pattern is constantly changing due to the changing content of the data bank. This affects such aspects as the frequency of re-searching; the preference in using author-title, title or LC card number approach; and the quality of cataloging offered by different cooperating libraries. We respond to this problem by monitoring the changes through the use of statistical analysis of positive/negative searches and by identifying the quality of cataloging provided by different cooperative libraries.

b. Difficulty in recording all the useful data at the time of searching:

When a COOP entry is found in the OCLC base during the pre-order or pre-catalog search, pertinent information is not recorded. (Such as: main entry corrections, information concerning series and pertinent notes, call number, subject entries or the OCLC control number.) To include this step in routine processing would call for a more advanced searcher, spending more time on this assignment, which, in case of an order cancellation, would be completely wasted.

We are trying to ease this problem by ordering a single card from the OCLC, known as "TEST" card for COOP entries, at the time of the initial search.

We are also looking into the possibility of photographing the entry directly from the screen by using a Polaroid camera, with an attachment designed for this purpose. This approach will also be of help to the editors and catalogers, who at present must edit the entry on the screen, turn the screen off, verify the entry in the shelf list, and recall the entry on the screen again, to complete processing.

c. The use of the "W-Collection" provides a very useful buffer for the uneven flow of material in the Technical Services Division. By keeping books with no LC card number in this collection for five months without any searching, increases the chances for more successfull searching later. Entries for books with an LC card number are searched monthly from the print-out provided by the circulation system, which avoids recalling the physical volume itself. The problem of delayed cataloging provided by the "W-Collection" is directly related to the pressures on the Technical Services Division for processing priorities. Up to a point, we would rather reduce the waiting period in

the "W-Collection" to three or four months, rather than to extend the search to books without an LC card number. This approach increases the chances for finding the entry with fewer searches.

d. Cataloging problems:

The time gap between the editing or cataloging of a title, the processing of the physical volume, and the filing of cards in Public Catalogs creates some difficulties, such as the following:

- if books are shelved before the catalog cards are received, one cannot verify the receipt of shelf list cards for all entries by simply matching them with books. On the other hand, if books are not shelved until cards are received the unshelved books may mushroom into a large, unusable collection.
- if an error on a catalog card is found at the time the cards are received from the OCLC, it might be difficult to retrieve the volume from circulation, thus delaying the process of correcting the error.
- since the catalog cards are received in packs sorted by different destinations, and interfiled within each such section, there is no fast way of verifying the completeness and correctness of all the tracings needed. The library is thus heavily dependent on the accuracy of the OCLC.

To minimize the risk, we keep a "TO" (titles ordered) file, and we check the received cards with this file, and sporadically, we thoroughly examine the content of selected packs of cards.

Since the categories of entries in the OCLC data bank are not rigidly defined, we might process some titles off-line that either

are in the system already or will be added to it soon. For example, the CIP entries, with no OCLC entry, could be saved until they are included in MARC tape. We process them as semi-original, probably duplicating similar efforts in a number of other libraries, if such entries are not inputted into the OCLC base. Not knowing the status of transliterated entries, we also catalog such entries off-line, again risking a duplication of effort.

- still another source of wasteful cataloging is presently caused by the MARC Defferred Tape. This tape, including over 6,000 entries, contains fully cataloged LC entries, which may or may not exactly match similar entries already inputted to the OCLC by COOP libraries. (The match should be on all three indexes: LC card number, author-title and title.) Thus for example, the LC entry inputted in OCLC without LC card number, as given in the book may be defferred for future visual verification. This difficulty will be resolved in the near future by a "Master Data Base Update Program" now being completed at the OCLC.
- Finally, there is a fear of losing the cataloging records altogether. This may happen whenever the OCLC system is malfunctioning, and before we can take note of the "save space" allocation number for our deposited entry. This, however, does not happen often, and the loss is limited to not more than one title temporarily in process at the time of system shutdown. More frightening is the thought of losing the records of all transactions for a given processing period due to internal problems at the OCLC. Once we did lose all the transactions processed during one day. We were notified by the center to reorder that particular day's transactions. Again, the "TO" file is the only safeguard.

C. Some statistical evaluations:

Statistical data are included in this report with some degree of hesitancy. We have not yet developed a satisfactory technique for isolating similar tasks, which could allow us to make a reliable comparison of exactly the same activities. Some of the data cited are results of actual counting, while others are interpolations from secondary sources.

Nevertheless, the overview provided by the tables may indicate a trend, while individual data, can illustrate their relative significance in relation to other, similarily gathered information.

In Fig. 2, the data provided for one terminal are reasonably accurate and were used for the projections made for second and third terminals. The number of searches also includes repeated searches. In cataloging operations, the semi-original input to the OCLC refers to the edited COOP entries processed in the OCLC for the first time. The use of terminals refers to the scheduled times, not the time of actual use. At the present level of operations in the Temple University Libraries, two terminals are not enough to process all material through the OCLC, while a third terminal may not be needed exclusively for cataloging purposes.

Processing time comparisons in Fig. 3, indicate that searching the proofslip file is a somewhat faster operation than the similar search made through the OCLC. The difference is in part explained by a need for a more detailed search, in which all the information provided on the screen must be transcribed immediately. This process is time consuming.

The time needed to search the proofslip file does not, of course, include the maintainance of that file. This time cost factor is completely absent in the OCLC operation.

In cataloging activities, the OCLC has a clear advantage over manual operations in all but one task. Preparation of instructions is slower in original cataloging since it involves a full, field by field, transcription of bibliographic data for keying-in purposes. The revision process is similar in both operations. In card production, the saving in time is most obvious, since OCLC cards are received fully processed.

The cost estimates in Fig. 4 are based on actual charges, and the example cited illustrates the total OCLC costs for a PALINET member library with the comparable size of operation.

The in-house card production estimates given in Fig. 5 are the least reliable. Yet they do reflect an impact of the OCLC on this operation. Cost of producing cards vary with the equipment and they also depend on minimum rates, calculated for different numbers of exposures.

The tabulation does not reflect a satisfactory, clear, well-formulated, and visually attractive card design.

ESTIMATED USE OF ON-LINE TERMINALS IN TEMPLE U. LIBRARIES

(a) Entries processed (Based on the total of 36,000 titles processed On and Off Line in one year).

	On Line		Off Line Only
	1 Terminals	2 Terminals	
	Entries per year		
Pre-Catalog Dept.:			
Search #1:	8,000	18,000(6)	8,400(7)
Search #2:	11,300	15,000	
Search #3:	2,500	15,000	3,000
Catalog Dept.:			
LC entries:			———
Editing	1,500	3,000	
Proofreading	6,500	13,000	
COOP entries	1,000	1,000	
Semi-Original Input to OCLC	2,500	7,500	
	11,500	24,500(8)	

(b) Use of Terminals (hours per working week)

Pre-Catalog Dept.	5 hours	15 hours
Catalog Dept.		
LC entries	20 hours	40 hours
COOP entries	3 hours	3 hours
Semi-orig. input	10 hours	30 hours
Training Operators	5 hours	5 hours
Anticipated down time	8 hours	13 hours
Total Time Scheduled:	46 hours	91 hours
Maximum Time Available(4)	53 hours	106 hours

(c) Trained personnel for OCLC operations (incl. back up)

	Professional Assistants	Bibliographic Assistants	Clerical Assistants	Graduate Students	Other Students
Pre-Cat. Dept.	—	7	1	—	—
Cat. Dept.	4	4	2	2	1 (Off line cards)

COMPARISONS OF MANUAL & OCLC

Processing times in Temple U. Libraries

(Broad approximations)

I. OCLC and manual search time

	OCLC	MANUAL		
		Proof slip	NUC (now)	NUC (with 68-72 cumulation)
Pre-Order Search (Poor copy)	11 min.	10 min.	16 1/2 min.	12 min.
Pre-Order Search (Good copy)	8 1/2 min.	7 1/2 min.	14 min.	9 1/2 min.
Post-Receipt Search Initial search - Abel Approval	8 min.	7 1/2 min.	13 min.	9 min.
Post-Receipt Search Initial search - Other - e.g., gifts, cat. seps.	12 1/2 min.	12 min.	17 1/2 min.	13 1/2 min.
Post-Receipt Search Additional search for cataloging copy	1 1/2 min.	No time.	7 1/2 min.	3 min.

II. Estimated cataloging time differential (per title)

	Cataloging Process	Preparing Instructions	Revisions	Total
Proofreading				
Manual	8 min.	2 min.	1 min.	11 min.
OCLC	3 min.	1 min.	2 min.	6 min.
Editing				
Manual	15 min.	2 min.	2 min.	19 min.
OCLC	6 min.	1 min.	2 min.	9 min.
Semi-original				
Manual	40 min.	2 min.	2 min.	44 min.
OCLC	20 min. (Includes off-line checking)	1 min.	2 min.	23 min.
Original				
Manual	70 min.	3 min.	2 min.	75 min.
OCLC	11 min.	4 min.	2 min.	17 min.

III. Estimated card production time

Manual system: (from the master preparation to the full processing i.e., including sorting by files)

- Originally cataloged: 15.45 min. per set of 8 cards
- Minolta enlarged: 13.65 min. per set of 8 cards
- Proof slip entry: 8.55 min. per set of 8 cards

OCLC system:

- Full sets are produced and presorted: 4¢ per card*
- (plus prorated OCLC system's overhead costs)

*Cost of catalog cards changes with the total number of cards processed by OCLC. The actual charge at the time of writing this report is 3.6¢ per card.

COST ESTIMATES FOR THE OCLC PROCESSING

I. Initial Costs:

A. Terminals

OCLC Model #100 (Beehive) purchase price: $3,400.00

B. OCLC programming charge

(OCLC Pack Definition Tables (PDT) 500.00

[Subsequent changes in the profile, $10.00 per change]

II. Annual Charges:

A. Communication Costs

(member's share of the total PALINET costs) 3,000.00

B. Shared title cost:

Number of titles retrieved from OCLC x $0.87 ———

[Do not include titles inputted to OCLC as "original"]

C. Card cost:

($0.036 per card produced by OCLC) ———

D. Local overheads (PALINET) 420.00

Notes:

(1) Communication costs includes the following prorated charges:

	Approximate present charge per PALINET member
(a) Telephone line, line conditioning and cost of one terminal in OCLC	$1,713.00
(b) Data set	660.00
(c) Local loop	168.00
(d) Maintenance cost	
Per terminal (3 calls) per year	
Each additional call per terminal, per year: $60.00 per call. Charges are for terminals within 50 air miles distance from a service center. Add $24.00 for each additional 25 air miles in excess of the initial 50 miles.	468.00

(2) Communication costs for additional terminals are:

(a) Local loop	$ 168.00
(b) Maintenance cost	468.00

(3) Example[9]

(10,000 titles cataloged in a year: 8,000 titles as shared cataloging, 2,000 as original input to the system; 10 cards per each title):

Communication costs	$3,000.00
Shared titles	7,200.00*
Card costs	4,000.00
Overhead (PALINET)	420.00
Total	$14,620.00

*Based on estimated cost of 90¢ per record. Presently the charge is 87¢ per record.

IN-HOUSE CARD PRODUCTION

I. Changing trend (projection is based on rough estimates)

	NUMBER OF TERMINALS		
A. Off-Line Processed	-1-	-2-	-3-
- Processing presently not compatible with OCLC:			
Non-Roman alphabets	2,500	2,500	2,500
- Compatible with OCLC:			
Special, local cataloging*	1,000	1,000	1,000
Original Cat.	7,500	6,500	—
Serials**	1,500	1,500	—
Off line processing	12,000	—	—
	22,000	9,000	1,000
B. - OCLC processed:	11,500	24,500	32,500
Total number of titles processed in the library	36,000	36,000	36,000
- Total number of:			
Master cards to be produced in-house:	24,500	11,500	3,500
Total number of individual cards (based on the average of 8 cards per master)	196,000	92,000	28,000

* Recent implementation of "099 call number field" provides for processing this kind of material.

** Not yet operational.

II. Cost comparison

(estimates calculated for one fully processed card, using, a 6-up master; labor, supplies & rental of equipment included)

A.	Master copy		
	- Original cataloging	$ .343	per master
	- Entries typed from Minolta	.352	per master
	- Minolta paste-up*	.273	per master
	- Catalog card enlarger (adopted Dennison Copier)	.234	per master
B.	Duplication		
	- Xerox 914	$ .010	per card
	- Xerox 2400	.008	per card
C.	Cards purchased from LC (includes typing added entries, etc.)	approx. .10¢	per card
D.	OCLC produced and sorted cards.	.04¢	per card

Note: *Equipment owned by the library - the cost of purchase not included.

The results of the tri-library experiment were reviewed at the membership meetings of the Pennsylvania Union Library Catalogue in May, 1972 and November, 1973. At each meeting, the heads of cataloging departments reported on the procedures used, and on problems encountered by each library.

In the last presentation, the issues and problems were listed under three separate headings:(10)

(1) The list of the on-line problems included a lack of computer facilities to store negative searches, thus requiring repetitive searches. Delays in card shipments were up to 2 1/2 weeks behind schedule in a few instances, creating temporary disruption in the processing flow. Delays in the system's response to the operator's request were up to 45 minutes long on one or two occasions; while the computer "down time" was as high as 39 hours per terminal in a period of 3 months operation in one library. Also mentioned were the delays in the delivery of terminals, and the problems created by MARC deferred tape.

(2) The list of the off-line problems included a need for frequent training of personnel caused by high turnover, the "7:00 a.m. to 7:00 p.m." scheduling difficulties, and the need for adjustments of some manual procedures in the OCLC requirements.

(3) A comparison of processing activities among the three libraries was based on data collected during a period of one year, and some statistical data collected during a three month period (Fig. 6).

SOME VARIATIONS IN THE EXPERIMENTAL

USE OF THE OCLC SYSTEM

I. Description of material processed during the first year of experimentation

Drexel University	University of Pennsylvania	Temple University
All cataloging (Original and editing) is processed on OCLC terminals	- current English imprint with an LC entry; - Interlibrary Loan searches	- all entries with LC card # and all available COOP entries; - Interlibrary Loan searches
	Edited By:	
	Professional librarian only	Bibliographic Assistants and Graduate students
	Shelf list verification:	
	Temporary shelf list is filed after the processing is completed.	Temporary shelf list is filed before the processing is completed.
	Use of "Save Space":	
	Does not use.	Uses up to the maximum allowed.
	Original Cataloging:	
	Not processed in OCLC.	Limited to semi-original COOP entries only.

II. Number of items processed Aug. - Oct., 1973

	Drexel University	University of Penna.	Temple University	
LC Cataloging	1,421	2,496	2,417	68%
COOP Cataloging	304	453	655	18%
Original Input	170	103	485	14%
				100%
Total Titles Cat.	1,895	3,052	3,557	
Total Cards Produced	19,626	26,898	29,394	
Computer Downtime	15 days (Defective terminal)	34 hours	39 hours	

IV. Summary: Reflection on the Systems in General

Mr. Kilgour, in one of his papers[11], estimates that in the American University, an annual operational cost per student increases two to three times as fast as the overall increases in the national economy. This is so, he maintains, because the technology of education has not yet increased the productivity of the educators. Thus, although the output per man-hour in the national economy is up 2.5% each year, the only components that are up in education are salaries, costs of books, equipment and plant maintenance. Furthermore, Mr. Kilgour warns, once a university is pressed to economize, one of the first budgets to be cut will most probably be the library's.

This in itself is a very good argument for reviewing library operations. Such a review, Mr. Kilgour maintains, ought not to be limited to improvements in the existing processes, but rather, it should initiate a number of radical changes of the processes themselves, by automation.

Kilgour illustrates his point by reminding us that the descriptive cataloging of today does not differ much from the cataloging practiced during the Middle Ages, except perhaps for the increased number of additional rules. On the other hand, an example of the revolution in reprography indicates the possible extent of such changes. It is estimated that a fast scriber in a very efficient monastery could transcribe 300 lines of text in one day; today's printing can do the same work 2,000 times as fast. So, instead of investing our energies and our budgets in old-fashioned operations and in antiquated equipment, we should instead invest our talent and our money in systems, such as the on-line, shared cataloging which can liberate us from the xerox machines, catalog cards and cabinets, se-lin gadgets, typewriters and similar paraphernalia of twentieth century librarianship.

The proponets of total automation are less eager, however, to project the probable costs of such systems. Nor do they want to predict the optimal capacity of such systems. It is difficult to envisage how large a system must be in order to absorb the ever increasing volume of use, once the on-line system works, and is free to all library users. How many terminals will be needed to replace the public catalogs? How extensive must the access to data banks be in order to serve the library searcher, the cataloger, the reference person, the administrator and the numerous library users, all asking for data at the same time?

Then there is the issue of governance. How should the networks grow? Horizontally, by building autonomous regional centers throughout the country, or vertically by constructing one, huge computer center, with numerous switching stations spread across the land? Arguments for each approach are almost equally convincing. A highly centralized network has all the weaknesses of monopoly; it's policies may be biased, it's decision-making process prejudicial and its very existence subjected to economic and political pressures. A labour dispute with, let's say, the maintenance staff of the center, caused by some local issues, could shut off the library network for the whole country.

On the other hand, how can a network maintain its national uniformity and replication status, if each region is free to innovate some procedures, and accept or reject others? What is the cost of maintaining a perfectly synchronized network of a dozen or so computer centers? What should be the governing structure of each region? Should the representation be based on the size of operation, the number of terminals, on one vote per library principle, or some other criteria?

Until these major issues are resolved on a national level, local libraries

will be unable to plan their own growth and development effectively. How much of an individual library's resources can be committed to such a system? As more of a library's operations are automated, its future depends more completely on the future of the whole system.

This lack of knowledge about long-range planning has a direct impact on every library. The fact that the OCLC's source program decks are not available to the participants outside Ohio, cripples the development of those library's own operations. For example, for the last three years we have been postponing the automation of our serials operations at Temple hoping that such a program will soon be implemented by the OCLC. We have finally given in to the mounting pressure last June, and have started building our own simplified computerized list of serial holdings. But we were not able to program our serials format in a way which automatically assures compatibility with the OCLC's format, because such a program is not yet available to us.

Even today, with the serials program being implemented by the OCLC, nobody, to my knowledge, talks about a printed list of holdings that could be produced by the OCLC and made available for distribution among libraries. This is a kind of service that is urgently needed in our library. We cannot wait too long for its implementation.

Another problem created by this lack of a crystal ball foresight into the future of the OCLC, refers to the whole issue of planning, recruiting and training of personnel in the technical services division. We are expected to have some savings in labor costs by attrition. Yet attrition, in a very healthy department might be a very slow process, requiring long range estimates of man-power needs. It is a difficult task, if the status of automation, and installation of terminals, cannot be predicted even for the next year or two. There is also

some concern shared by some of us, about the lack of backup systems, both in the Center and locally. It is extremely difficult to switch back to a manual operation on short notice, in a fully automated division.

Then there is also some apprehension about the relatively little known Xerox Sigma Computer configuration. Some of our universities have their own, well developed computer centers, and one wonders about the untapped potential advantages in using his own computers. Should one commit his library to the programs that will not be compatible with other, better known hardware? What about the obsolescence of equipment? Replacement of parts?

Finally, with our better understanding of the psychological make-up of a computer specialist, we become aware of a peculiar paradox which may become a problem in the future. The tremendous investment of time and money in a complex automated program of library operations makes the computer specialist very reluctant to make any modifications once the program has been implemented. This creates a new conceptual gap between a static, conservative system analyst and a dynamic, fully awake, progressive librarian.

The advent of automation also opens up the whole series of questions concerning professional ethics. Network means cooperation, but cooperation at what price?

On-line access to library holdings increases interlibrary loan activities, sometimes putting heavy burdens on larger collections. Then there is the issue of helping the not-so-wealthy libraries to join the network by sharing equally with them the added costs of communication lines. Shared cataloging implies original input to new titles; how long can the library wait for MARC or COOP entry before doing the job in-house? With the decreased duplication of expensive cataloging, the market for catalogers will change, putting a high price for fewer, but better, catalogers. Will we share human resources? Will our own university administration approve such far-fetched cooperation?

Meanwhile the OCLC system works; it works extremely well under the given circumstances.[12] Most of the issues raised in this section are more rationalized than experienced, and these frustrations do express more and more the impatience with a slow rate of changes, rather than with changes themselves.

Looking into the future, one can dream about things to come, such as automatic book selection, mechanized payment of bills, computerized claims, on-line shelf lists, instantly updated lists of serial holdings, and a complete disappearance not only of card catalogs but also book indexes--a pleasant dream about a new electronic library system free of physical records. Dreams have no limits, of course, but selling them to others is, or should be, forbidden by a code of ethics.

V. Notes and Bibliography.

A. Footnotes:

1. This report was prepared for the panel discussion at the ALA Mid-winter meeting of the Technical Services Administrators of Smaller Research Libraries, Chicago, January, 1974; although the text was not delivered in full.

I wish to acknowledge the assistance of my colleagues at Temple University, especially Mrs. Mary Gross and Miss Pamela Thaxter, heads of the Catalog and Pre-Catalog Departments, for their help in gathering and verifying statistical data used in this report.

2. The statements concerning technical aspects of the OCLC system are based on various documents published by the staff of the OCLC.

Some of the information used in this report is also discussed in Robert C. Stewart, "Cataloging with a computer-OCLC comes to Pennsylvania", PLA Bulletin, January 1973, pp. 9-15.

3. Background material for this section consists of minutes of meetings, memoranda, letters and reports, issued by various librarians who have been directly involved in PALINET activities.

4. See also: Mary Gross, "OCLC cataloging experiment at Temple University", PLA Bulletin, May 1973, pp. 109-113.

5. Briefly, "W-Collection" provides library patrons the full use of library material prior to its classification and cataloging.

6. Includes English language Post 66 publications.
7. Includes English and foreign Pre-67 and serials publications.
8. It is the estimated maximum number of titles that can be processed on two terminals.
9. Quoted from the leaflet prepared by the Pennsylvania Union Library Catalogue, p. 2 (Fall, 1973).
10. Mary Gross, "OCLC operational results and statistics", oral report presented at the membership meeting of the Pennsylvania Union Library Catalogue, November 15, 1973.
11. Frederick G. Kilgour, "The economic goal of library automation", College & Research Libraries, July 1969, pp. 307-311.
12. The satisfaction with the OCLC system is well illustrated by the growth of the PALINET membership. At the time of this writing, the following libraries are on-line with the OCLC center: (1) Bryn Mawr College, (2) Drexel University, (3) Pennsylvania State Library, (4) Pennsylvania Union Library Catalogue, (5) St. Joseph's College, (6) Temple University (2 terminals), (7) University of Delaware, (8) University of Pennsylvania (3 terminals).

B. Some other publications that might be of interest to the reader of this report:

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